

**REMARKS**

In the Response to the Office Action dated June 17, 2004, Applicants pointed out that all of the data lines in Kim et al. have the same lengths to the pad region. In addition, Applicants pointed out that the plan arrangement of the data lines in Kim et al. is the same as the related art data lines shown in FIG. 3 of the present application. Further, Applicants respectfully submitted that Kim et al. does not teach or suggest data lines having different extended lengths.

In the December 2, 2004 Final Office Action, claim 25 stands again rejected under 35 U.S.C. § 102(b) as being unpatentable over Kim et al. To maintain this rejection, the Final Office Action asserts at page 3 that Kim et al. discloses in the upper pad region of data lines D1-D2N (outside the display region 3), the data lines D1, D2, D3 and D4 have alternately different lengths extended from the display region 3 to the pad region. This assertion is incorrect for at least one of the following four reasons.

First, a feature of claim 25 has been misread. Claim 25 recites, amongst other features, “a plurality of data lines crossing the gate lines and having alternately different extended lengths to the pad region.” The Final Office Action asserts that data lines D1, D2, D3 and D4 have alternately different lengths extended from the display region 3 to the pad region. Claim 25 does not recite a plurality of data lines crossing the gate lines and having alternately different lengths extended to the pad region, as asserted in the Final Office Action. Contrary to this assertion, claim 25 clearly recites that the extended lengths of the data lines to the pad region are alternately different. Accordingly, Applicants respectfully submit that Kim et al. fails to showing data lines having extended lengths to the pad region in which the extended lengths are alternately different.

Second, the reference of Kim et al. has been improperly applied. In addition to data lines having alternately different extended lengths to the pad region, claim 25 also recites, amongst other features, “an insulating substrate defined as a cell region and a pad region.” The Final Office Action asserts that there is an “upper pad region of data lines D1-D2N (outside the display region 3).” Apparently, the Final Office Action allegedly asserts that an area outside of the display area 3 of Kim et al. is the pad area. However, the Final Office Action does not make any reference to a cell region. Applicants respectfully submit that the repair lines 100 and 200 of Kim et al. should be considered to be parts of the cell region since these lines are used for repair of the cell region in Kim et al. Further, Applicants respectfully submit that the outer diameter of the repair line 200 in Kim et al. is an outer boundary of the cell region and an inner boundary of the pad region. Accordingly, only one end of each data line shown in Kim et al. has an extended length to a pad region and all of the extended lengths are the same. Thus, Applicants respectfully assert that is incorrect to assert that a pad region would include repair lines of Kim et al. and that data lines of Kim et al. have alternately different extended lengths to a pad region.

Third, a feature of claim 25 has been misunderstood. As stated above, in addition to data lines having alternately different extended lengths to the pad region, claim 25 also recites, amongst other features, “an insulating substrate defined as a cell region and a pad region.” The Final Office Action asserts that there is an “upper pad region of data lines D1-D2N (outside the display region 3).” Apparently, the Final Office Action is asserting that there is a claimed upper pad region. Applicants respectfully assert that claim 25 only claims a pad region. Claim 25 does not recite an upper pad region or any other type of pad region. There is no basis for asserting that

only an upper pad portion is claimed. As stated above, the pad region in Kim et al. is the area outside of the second repair line 200 and surrounding the cell region of Kim et al. Thus, the data line D1 of Kim et al. has the same extended length to a data pad in the pad region as data line D2 does extending to its data pad in the pad region. Accordingly, all of the data lines in Kim et al. have the same extended lengths to a pad region.

Fourth, Kim et al. does not show all of the feature recited in claim 25. In addition to data lines having alternately different extended lengths to the pad region, claim 25 also recites, amongst other features, that the “alternately different extended lengths are also respectively at alternately different levels above the insulating substrate.” Applicants respectfully submit that all of the extended lengths of the data lines in Kim et al. are at the same level. In the first Office Action, the Examiner referred to a dual plane right angle cross-sectional view in FIG. 10 of Kim et al., which shows the level of a data line D2n before the shorting line 100 and the level of a Data line D2n-1 on the shorting line 100. In other words, FIG. 10 of Kim et al. fails to show alternately different extended lengths of data lines to a pad region in which the alternately different extended lengths are at alternately different levels in a single plane cross-sectional view.

Applicants respectfully submit that Kim et al. discloses data lines that alternate by having a first data line with an extended length followed by a second data line without an extended length and then a third data line with the same extended length as the first data line. If the Examiner persists in maintaining this rejection, Applicants respectfully request that the Examiner point out the section of Kim et al. that anticipates data lines having alternately different extended lengths to a pad region. Further, Applicants respectfully request that the Examiner point out the

section of Kim et al. that anticipates data lines having alternately different extended lengths to a pad region and that those alternately different extended lengths are also respectively at alternately different levels above the insulating substrate. For at least one of the reasons above, Applicants respectfully request that the 35 U.S.C. § 102(b) rejection of claim 25 be withdrawn.

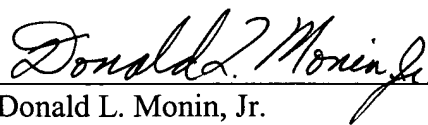
**CONCLUSION**

In view of the foregoing, Applicants respectfully request reconsideration and the timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of the response, the Examiner is invited to contact the Applicants' undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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